

Tennessee Motorcycle Crash Statistics



Tennessee Department of Safety
May 2008

Introduction

For over a decade, motorcycle crashes in Tennessee have increased annually, and in recent years the rate of increase has grown. Since May is designated Motorcycle Safety Awareness Month by the National Highway Traffic Safety Administration (NHTSA), the Tennessee Department of Safety (TDOS) produced this report to bring added attention to issues related to motorcycle crashes and provide motorcycle crash data for use by policy makers and the general public. The report shows relevant statistics and trends based on factors identified by TDOS as important in motorcycle crashes. By focusing attention on this issue, it is hoped that the report might facilitate actions that will curb the increase in motorcycle crashes in upcoming years.



List of Tables

Table 1: Class M Endorsements By County	1
Table 2: Motorcycle Crashes per Year	3
Table 3: Fatal and Injury Motorcycle Crashes	3
Table 4: Motorcycle Fatalities	3
Table 5: Crashes and Crash Rates (per 1000 Class M Endorsements) by County	6
Table 6: Motorcycle Crashes by Month	8
Table 7: Percentage of Motorcycle Crashes Occurring per Month	9
Table 8: Motorcycle Crashes by Day of Week	10
Table 9: Percentage of Motorcycle Crashes Occurring per Day of Week	11
Table 10: Motorcycle Crashes Occurring by Hour	12
Table 11: Motorcycle Crashes by Light Condition	13
Table 12: Motorcycle Drivers in Crashes by Age	14
Table 13: Percentage of Motorcycle Drivers in Crashes by Age	15
Table 14: Annual Percent Change of Motorcycle Drivers in Crashes by Age	16
Table 15: Speed-Related Motorcycle Crashes	17
Table 16: Alcohol-Related Motorcycle Crashes	18
Table 17: Motorcycle Crashes by Weather Conditions	19
Table 18: Multiple Vehicle Crashes	20
Table 19: Intersection Related Crashes	21
Table 20: Motorcycles In Crashes by Motorcycle Make	22

Table 1: Class M Endorsements by County

County Name	2003	2004	2005	2006	Total	% Change	Average Annual Change
Anderson	3,826	4,043	4,349	4,613	16,831	20.6%	6.4%
Bedford	1,881	1,992	2,084	2,179	8,136	15.8%	5.0%
Benton	827	871	909	946	3,553	14.4%	4.6%
Bledsoe	462	495	557	599	2,113	29.7%	9.1%
Blount	6,229	6,725	7,311	7,845	28,110	25.9%	8.0%
Bradley	4,767	4,955	5,167	5,411	20,300	13.5%	4.3%
Campbell	1,538	1,640	1,748	1,812	6,738	17.8%	5.6%
Cannon	550	578	641	671	2,440	22.0%	6.9%
Carroll	1,370	1,407	1,448	1,506	5,731	9.9%	3.2%
Carter	3,057	3,196	3,378	3,482	13,113	13.9%	4.4%
Cheatham	2,113	2,201	2,294	2,398	9,006	13.5%	4.3%
Chester	532	565	593	642	2,332	20.7%	6.5%
Claiborne	1,365	1,436	1,498	1,549	5,848	13.5%	4.3%
Clay	336	357	403	416	1,512	23.8%	7.5%
Cocke	1,443	1,566	1,655	1,737	6,401	20.4%	6.4%
Coffee	2,571	2,691	2,871	2,988	11,121	16.2%	5.1%
Crockett	440	469	484	507	1,900	15.2%	4.8%
Cumberland	2,114	2,352	2,688	2,992	10,146	41.5%	12.3%
Davidson	16,856	17,188	17,745	18,113	69,902	7.5%	2.4%
Decatur	442	466	507	529	1,944	19.7%	6.2%
De Kalb	720	793	842	906	3,261	25.8%	8.0%
Dickson	2,207	2,323	2,467	2,615	9,612	18.5%	5.8%
Dyer	1,238	1,302	1,389	1,468	5,397	18.6%	5.8%
Fayette	1,145	1,246	1,458	1,606	5,455	40.3%	12.0%
Fentress	521	570	634	710	2,435	36.3%	10.9%
Franklin	1,773	1,843	1,932	2,040	7,588	15.1%	4.8%
Gibson	1,905	1,967	2,113	2,241	8,226	17.6%	5.6%
Giles	1,441	1,530	1,675	1,740	6,386	20.7%	6.5%
Grainger	999	1,082	1,201	1,286	4,568	28.7%	8.8%
Greene	3,942	4,065	4,299	4,476	16,782	13.5%	4.3%
Grundy	443	468	503	542	1,956	22.3%	7.0%
Hamblen	2,604	2,759	3,014	3,176	11,553	22.0%	6.9%
Hamilton	12,125	12,590	13,152	13,766	51,633	13.5%	4.3%
Hancock	290	300	312	313	1,215	7.9%	2.6%
Hardeman	661	686	727	770	2,844	16.5%	5.2%
Hardin	949	1,017	1,086	1,152	4,204	21.4%	6.7%
Hawkins	3,287	3,460	3,713	3,867	14,327	17.6%	5.6%
Haywood	392	405	428	449	1,674	14.5%	4.6%
Henderson	983	1,047	1,126	1,190	4,346	21.1%	6.6%
Henry	1,616	1,725	1,818	1,879	7,038	16.3%	5.2%
Hickman	1,070	1,121	1,219	1,280	4,690	19.6%	6.2%
Houston	307	346	385	415	1,453	35.2%	10.6%
Humphreys	820	863	921	980	3,584	19.5%	6.1%
Jackson	562	571	601	627	2,361	11.6%	3.7%
Jefferson	2,133	2,292	2,504	2,733	9,662	28.1%	8.6%
Johnson	996	1,046	1,117	1,178	4,337	18.3%	5.8%
Knox	15,652	16,377	17,426	18,336	67,791	17.1%	5.4%
Lake	131	152	162	169	614	29.0%	9.0%
Lauderdale	572	617	690	736	2,615	28.7%	8.8%
Lawrence	1,890	1,976	2,109	2,245	8,220	18.8%	5.9%

Lewis	676	713	743	777	2,909	14.9%	4.8%
Lincoln	1,331	1,447	1,582	1,665	6,025	25.1%	7.8%
Loudon	2,172	2,368	2,617	2,839	9,996	30.7%	9.3%
McMinn	2,340	2,447	2,619	2,839	10,245	21.3%	6.7%
McNairy	779	820	889	940	3,428	20.7%	6.5%
Macon	838	885	931	986	3,640	17.7%	5.6%
Madison	3,038	3,220	3,386	3,501	13,145	15.2%	4.8%
Marion	1,337	1,444	1,553	1,652	5,986	23.6%	7.3%
Marshall	1,384	1,434	1,527	1,616	5,961	16.8%	5.3%
Maury	4,194	4,377	4,623	4,843	18,037	15.5%	4.9%
Meigs	506	540	599	659	2,304	30.2%	9.2%
Monroe	1,656	1,840	2,011	2,216	7,723	33.8%	10.2%
Montgomery	6,580	7,312	7,842	8,491	30,225	29.0%	8.9%
Moore	335	361	396	423	1,515	26.3%	8.1%
Morgan	748	823	880	918	3,369	22.7%	7.1%
Obion	1,429	1,492	1,539	1,624	6,084	13.6%	4.4%
Overton	810	873	938	1,004	3,625	24.0%	7.4%
Perry	419	431	453	467	1,770	11.5%	3.7%
Pickett	266	275	292	302	1,135	13.5%	4.3%
Polk	866	905	954	1,017	3,742	17.4%	5.5%
Putnam	3,201	3,342	3,541	3,711	13,795	15.9%	5.1%
Rhea	1,264	1,344	1,435	1,544	5,587	22.2%	6.9%
Roane	2,596	2,756	2,943	3,130	11,425	20.6%	6.4%
Robertson	2,927	3,054	3,203	3,372	12,556	15.2%	4.8%
Rutherford	8,958	9,538	10,393	11,136	40,025	24.3%	7.5%
Scott	537	597	642	682	2,458	27.0%	8.3%
Sequatchie	577	633	722	812	2,744	40.7%	12.1%
Sevier	4,358	4,739	5,114	5,479	19,690	25.7%	7.9%
Shelby	17,408	17,980	18,833	19,382	73,603	11.3%	3.6%
Smith	891	939	998	1,056	3,884	18.5%	5.8%
Stewart	626	661	701	746	2,734	19.2%	6.0%
Sullivan	9,584	9,923	10,312	10,647	40,466	11.1%	3.6%
Sumner	6,326	6,678	7,133	7,599	27,736	20.1%	6.3%
Tipton	1,959	2,112	2,309	2,523	8,903	28.8%	8.8%
Trousdale	288	313	331	370	1,302	28.5%	8.7%
Unicoi	1,010	1,036	1,096	1,142	4,284	13.1%	4.2%
Union	834	873	916	956	3,579	14.6%	4.7%
Van Buren	228	240	273	286	1,027	25.4%	7.9%
Warren	1,778	1,867	1,976	2,044	7,665	15.0%	4.8%
Washington	5,619	5,779	6,110	6,324	23,832	12.5%	4.0%
Wayne	705	727	754	796	2,982	12.9%	4.1%
Weakley	1,323	1,384	1,478	1,555	5,740	17.5%	5.5%
White	1,121	1,181	1,268	1,357	4,927	21.1%	6.6%
Williamson	5,998	6,443	7,016	7,421	26,878	23.7%	7.4%
Wilson	5,472	5,867	6,274	6,656	24,269	21.6%	6.7%
Unknown	599	405	260	135	1,399	-77.5%	-38.8%
Total	233,984	246,150	261,758	275,466	1,017,358	17.7%	5.6%

Source: TN Dept of Safety Year-End Driver License Reports, 2003 - 2006.

Table 2: Motorcycle Crashes per Year

Year	Crashes	% Change
2003	1,911	N/A
2004	2,169	13.5%
2005	2,568	18.4%
2006	2,827	10.1%
Total	9,475	47.9%

TN Dept of Safety Crash Reporting System, 06 May 2008

Table 3: Fatal and Injury Motorcycle Crashes

Year	Fatal	Injury
2003	85	1,412
2004	88	1,656
2005	124	1,965
2006	121	2,158

Sources: Fatal Crashes, NHTSA FARS Encyclopedia, accessed 12 May 2008.

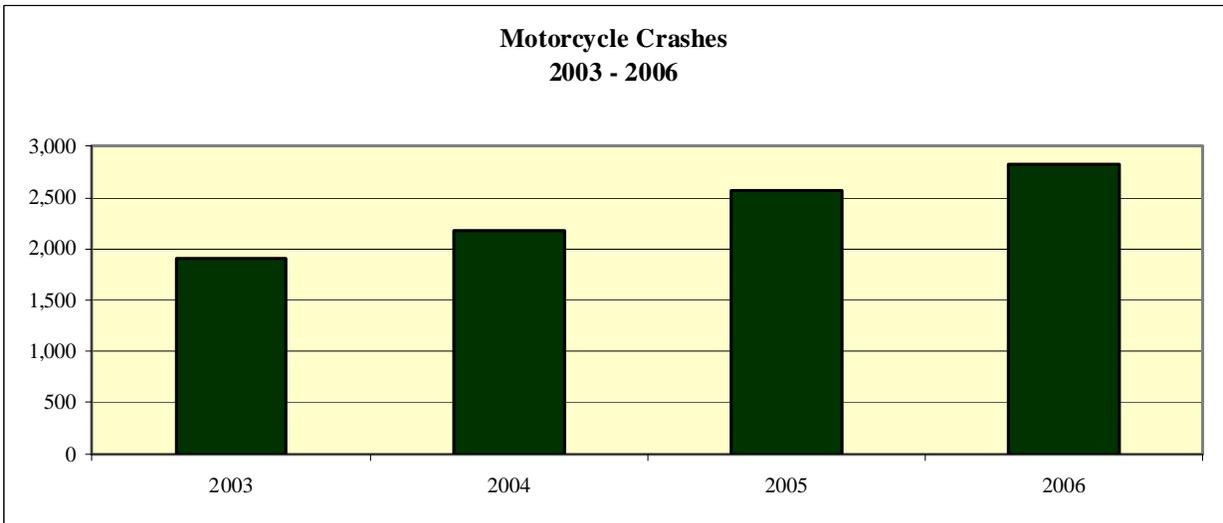
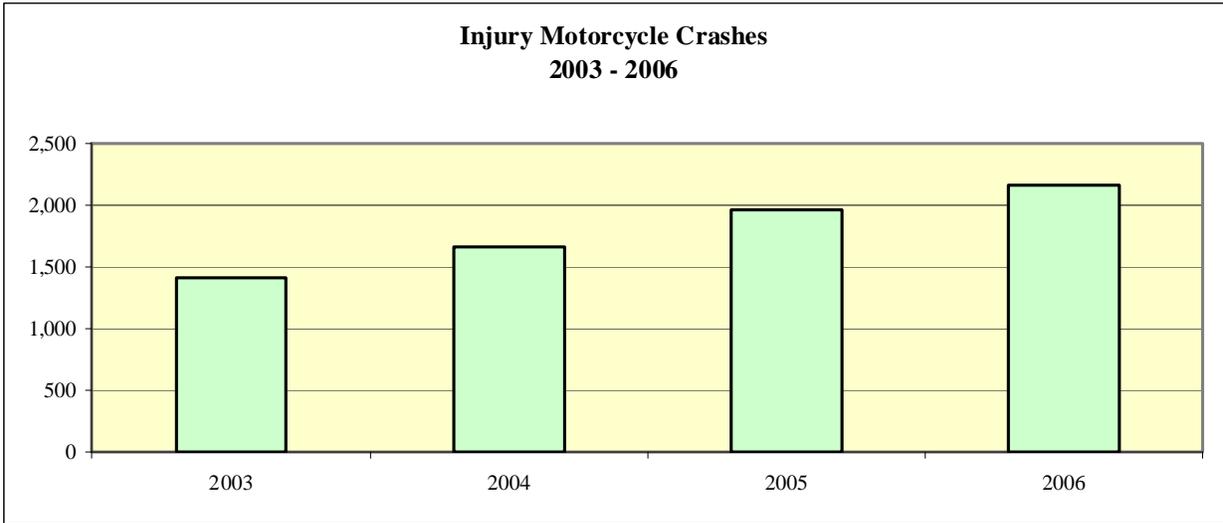
Injury Crashes, TN Dept of Safety Crash Reporting System, 12 May 2008.

Table 4: Motorcycle Fatalities

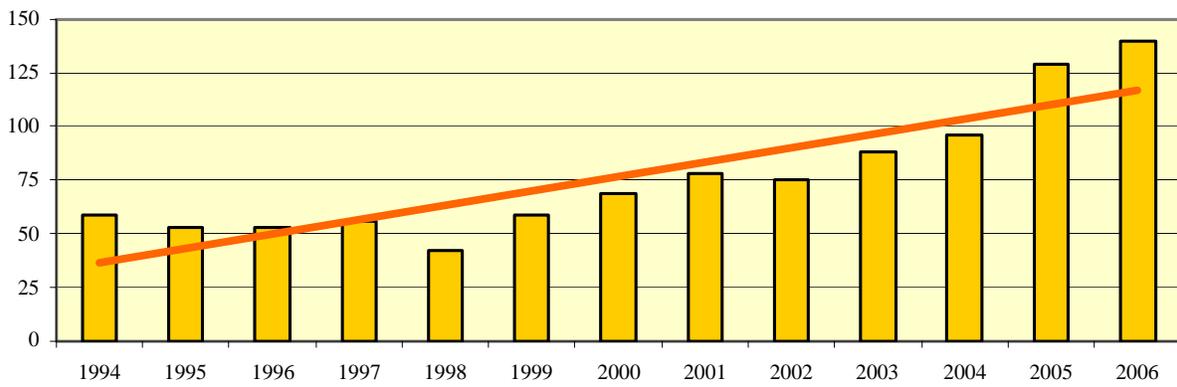
Year	Fatalities	Helmet-Yes	Helmet-No	Helmet-Unknown
1994	59	52	7	0
1995	53	39	14	0
1996	53	43	10	0
1997	56	47	9	0
1998	42	37	4	1
1999	59	47	12	0
2000	69	49	19	1
2001	78	70	7	1
2002	75	60	13	2
2003	88	73	15	0
2004	96	84	12	0
2005	129	107	20	2
2006	140	118	21	1

Source: NHTSA website and TDOS FARS Division, 06 May 2008.

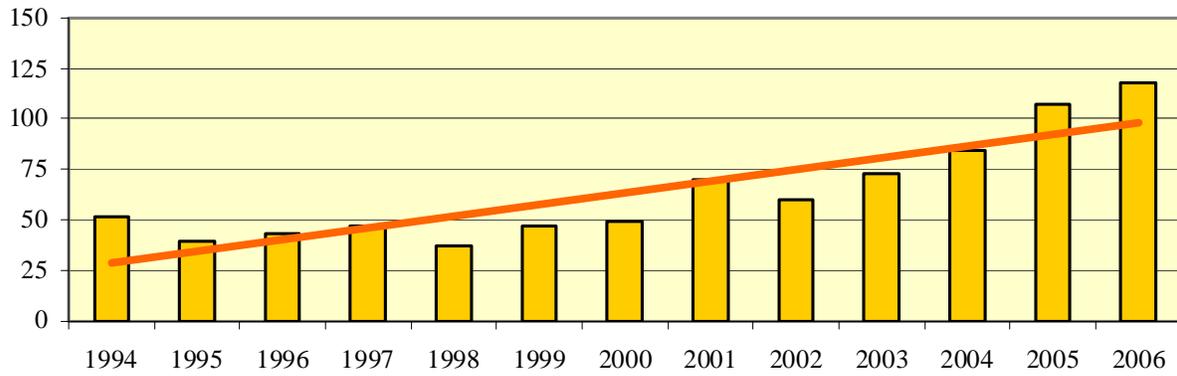
Between 2003 and 2006, motorcycle crashes in Tennessee rose by an annual average of 14%. Since 1994, motorcycle fatalities increased by 137%, an annual average change of 8.9%. Approximately 16% of the motorcyclists killed between 1994 and 2006 were not helmeted. The charts on the following page illustrate these trends.



Motorcycle Fatalities in TN, 1994-2006



Motorcycle Fatalities with Helmet in TN, 1994-2006



Motorcycle Fatalities without Helmet in TN, 1994-2006

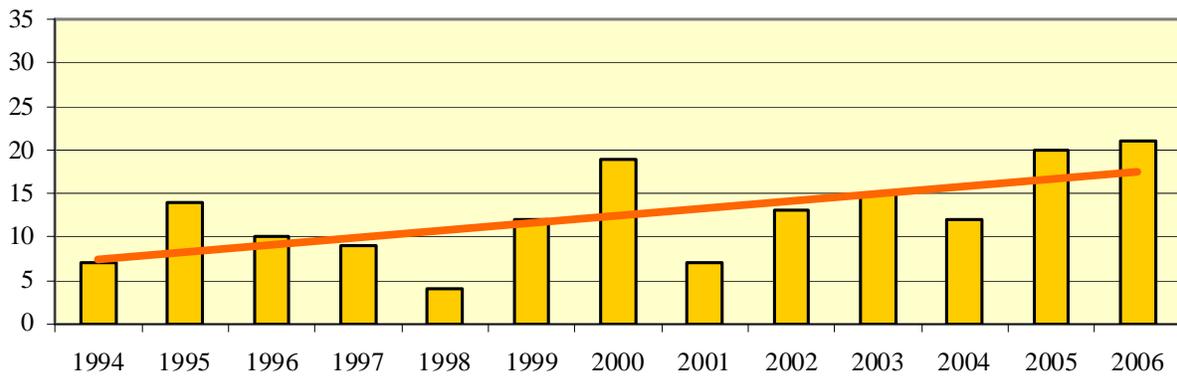


Table 4 below shows motorcycle crashes and crash rates per county for the years 2003 through 2006. The table shows that 28 counties had an average motorcycle crash rate greater than the statewide motorcycle crash rate.

Table 5: Crashes and Crash Rates (per 1000 Class M Endorsements) by County

County Name	2003		2004		2005		2006		Total		
	Crashes	Rate	Rank								
Anderson	29	7.58	37	9.15	50	11.50	35	7.59	151	8.95	32
Bedford	10	5.32	14	7.03	18	8.64	20	9.18	62	7.54	49
Benton	3	3.63	4	4.59	7	7.70	5	5.29	19	5.30	80
Bledsoe	5	10.82	7	14.14	5	8.98	1	1.67	18	8.90	34
Blount	115	18.46	150	22.30	174	23.80	200	25.49	639	22.52	1
Bradley	26	5.45	25	5.05	33	6.39	46	8.50	130	6.35	68
Campbell	13	8.45	8	4.88	12	6.86	10	5.52	43	6.43	66
Cannon	9	16.36	1	1.73	10	15.60	4	5.96	24	9.91	24
Carroll	4	2.92	3	2.13	12	8.29	11	7.30	30	5.16	84
Carter	15	4.91	22	6.88	19	5.62	17	4.88	73	5.57	76
Cheatham	15	7.10	17	7.72	18	7.85	20	8.34	70	7.75	46
Chester	1	1.88	8	14.16	5	8.43	4	6.23	18	7.68	47
Claiborne	7	5.13	5	3.48	7	4.67	10	6.46	29	4.93	87
Clay	2	5.95	5	14.01	2	4.96	5	12.02	14	9.23	29
Cocke	15	10.40	13	8.30	26	15.71	24	13.82	78	12.06	13
Coffee	20	7.78	24	8.92	21	7.31	13	4.35	78	7.09	56
Crockett	1	2.27	2	4.26	7	14.46	0	0.00	10	5.25	82
Cumberland	7	3.31	19	8.08	29	10.79	25	8.36	80	7.63	48
Davidson	200	11.87	176	10.24	207	11.67	249	13.75	832	11.88	14
Decatur	2	4.52	4	8.58	5	9.86	2	3.78	13	6.69	63
De Kalb	9	12.50	13	16.39	7	8.31	12	13.25	41	12.61	11
Dickson	13	5.89	14	6.03	19	7.70	21	8.03	67	6.91	61
Dyer	4	3.23	12	9.22	13	9.36	14	9.54	43	7.84	45
Fayette	12	10.48	8	6.42	12	8.23	3	1.87	35	6.75	62
Fentress	2	3.84	4	7.02	4	6.31	5	7.04	15	6.05	73
Franklin	7	3.95	19	10.31	11	5.69	9	4.41	46	6.09	71
Gibson	14	7.35	10	5.08	14	6.63	16	7.14	54	6.55	64
Giles	9	6.25	7	4.58	10	5.97	16	9.20	42	6.50	65
Grainger	11	11.01	7	6.47	10	8.33	9	7.00	37	8.20	40
Greene	26	6.60	19	4.67	35	8.14	38	8.49	118	6.98	58
Grundy	3	6.77	9	19.23	13	25.84	2	3.69	27	13.88	7
Hamblen	18	6.91	19	6.89	18	5.97	26	8.19	81	6.99	57
Hamilton	109	8.99	128	10.17	142	10.80	165	11.99	544	10.48	22
Hancock	1	3.45	4	13.33	2	6.41	2	6.39	9	7.40	53
Hardeman	8	12.10	4	5.83	5	6.88	15	19.48	32	11.07	18
Hardin	9	9.48	11	10.82	8	7.37	10	8.68	38	9.09	30
Hawkins	8	2.43	16	4.62	29	7.81	20	5.17	73	5.01	85
Haywood	5	12.76	2	4.94	3	7.01	3	6.68	13	7.85	44
Henderson	10	10.17	14	13.37	11	9.77	10	8.40	45	10.43	23
Henry	15	9.28	11	6.38	14	7.70	16	8.52	56	7.97	42
Hickman	5	4.67	8	7.14	7	5.74	6	4.69	26	5.56	77
Houston	1	3.26	3	8.67	5	12.99	4	9.64	13	8.64	37
Humphreys	3	3.66	4	4.63	5	5.43	6	6.12	18	4.96	86
Jackson	3	5.34	7	12.26	9	14.98	11	17.54	30	12.53	12
Jefferson	11	5.16	16	6.98	31	12.38	19	6.95	77	7.87	43
Johnson	17	17.07	23	21.99	18	16.11	17	14.43	75	17.40	5
Knox	107	6.84	137	8.37	189	10.85	165	9.00	598	8.76	36

County Name	2003		2004		2005		2006		Total		
	Crashes	Rate	Crashes	Rate	Crashes	Rate	Crashes	Rate	Crashes	Rate	Rank
Lake	0	0.00	0	0.00	0	0.00	2	11.83	2	2.96	95
Lauderdale	4	6.99	3	4.86	4	5.80	9	12.23	20	7.47	52
Lawrence	8	4.23	10	5.06	15	7.11	16	7.13	49	5.88	74
Lewis	4	5.92	3	4.21	3	4.04	4	5.15	14	4.83	89
Lincoln	15	11.27	18	12.44	13	8.22	24	14.41	70	11.59	16
Loudon	13	5.99	16	6.76	22	8.41	32	11.27	83	8.11	41
McMinn	25	10.68	27	11.03	14	5.35	47	16.56	113	10.90	20
McNairy	4	5.13	4	4.88	9	10.12	8	8.51	25	7.16	55
Macon	3	3.58	7	7.91	7	7.52	14	14.20	31	8.30	39
Madison	30	9.87	33	10.25	41	12.11	41	11.71	145	10.99	19
Marion	15	11.22	11	7.62	13	8.37	19	11.50	58	9.68	25
Marshall	2	1.45	8	5.58	9	5.89	13	8.04	32	5.24	83
Maurv	25	5.96	24	5.48	34	7.35	28	5.78	111	6.15	70
Meigs	2	3.95	4	7.41	3	5.01	2	3.03	11	4.85	88
Monroe	27	16.30	27	14.67	32	15.91	52	23.47	138	17.59	4
Montgomery	67	10.18	99	13.54	86	10.97	108	12.72	360	11.85	15
Moore	1	2.99	3	8.31	4	10.10	7	16.55	15	9.49	27
Morgan	5	6.68	8	9.72	8	9.09	12	13.07	33	9.64	26
Obion	12	8.40	13	8.71	21	13.65	22	13.55	68	11.08	17
Overton	9	11.11	9	10.31	5	5.33	9	8.96	32	8.93	33
Perry	3	7.16	5	11.60	2	4.42	6	12.85	16	9.01	31
Pickett	2	7.52	1	3.64	1	3.42	2	6.62	6	5.30	81
Polk	11	12.70	12	13.26	14	14.68	14	13.77	51	13.60	8
Putnam	21	6.56	14	4.19	28	7.91	38	10.24	101	7.22	54
Rhea	6	4.75	6	4.46	7	4.88	8	5.18	27	4.82	90
Roane	14	5.39	10	3.63	32	10.87	16	5.11	72	6.25	69
Robertson	14	4.78	19	6.22	17	5.31	19	5.63	69	5.49	79
Rutherford	76	8.48	73	7.65	111	10.68	116	10.42	376	9.31	28
Scott	1	1.86	5	8.38	2	3.12	4	5.87	12	4.80	91
Sequatchie	8	13.86	10	15.80	3	4.16	7	8.62	28	10.61	21
Sevier	55	12.62	54	11.39	60	11.73	82	14.97	251	12.68	10
Shelby	234	13.44	253	14.07	283	15.03	310	15.99	1,080	14.63	6
Smith	11	12.35	7	7.45	7	7.01	9	8.52	34	8.83	35
Stewart	9	14.38	15	22.69	15	21.40	13	17.43	52	18.97	3
Sullivan	40	4.17	65	6.55	68	6.59	86	8.08	259	6.35	67
Sumner	27	4.27	38	5.69	62	8.69	37	4.87	164	5.88	75
Tipton	16	8.17	10	4.73	14	6.06	28	11.10	68	7.52	50
Trousdale	3	10.42	1	3.19	3	9.06	4	10.81	11	8.37	38
Unicoi	6	5.94	6	5.79	6	5.47	12	10.51	30	6.93	60
Union	2	2.40	2	2.29	7	7.64	6	6.28	17	4.65	92
Van Buren	5	21.93	4	16.67	7	25.64	4	13.99	20	19.56	2
Warren	11	6.19	6	3.21	9	4.55	9	4.40	35	4.59	93
Washington	16	2.85	50	8.65	57	9.33	58	9.17	181	7.50	51
Wayne	13	18.44	10	13.76	5	6.63	11	13.82	39	13.16	9
Weakley	5	3.78	3	2.17	10	6.77	8	5.14	26	4.46	94
White	8	7.14	7	5.93	3	2.37	9	6.63	27	5.52	78
Williamson	46	7.67	36	5.59	36	5.13	44	5.93	162	6.08	72
Wilson	29	5.30	40	6.82	45	7.17	57	8.56	171	6.96	59
Unknown	9	15.03	7	17.28	0	0.00	0	0.00	16	8.08	N/A
Total	1,911	8.17	2,169	8.81	2,568	9.81	2,827	10.26	9,475	9.26	N/A

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Between 2003 and 2006 over 81% of motorcycle crashes occurred from April to October. Only 7% of motorcycle crashes occurred between December and February. Tables 6 and 7 and the accompanying charts show the yearly pattern in motorcycle crashes.

Table 6: Motorcycle Crashes by Month

Month	2003	2004	2005	2006	Total
January	26	40	60	98	224
February	19	64	69	53	205
March	129	144	152	159	584
April	221	209	211	300	941
May	198	246	315	304	1,063
June	202	264	301	374	1,141
July	251	306	299	371	1,227
August	262	280	299	314	1,155
September	274	252	365	330	1,221
October	183	199	290	256	928
November	97	109	148	146	500
December	49	56	59	122	286
Total	1,911	2,169	2,568	2,827	9,475

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Motorcycle Crashes by Month, 2003 - 2006

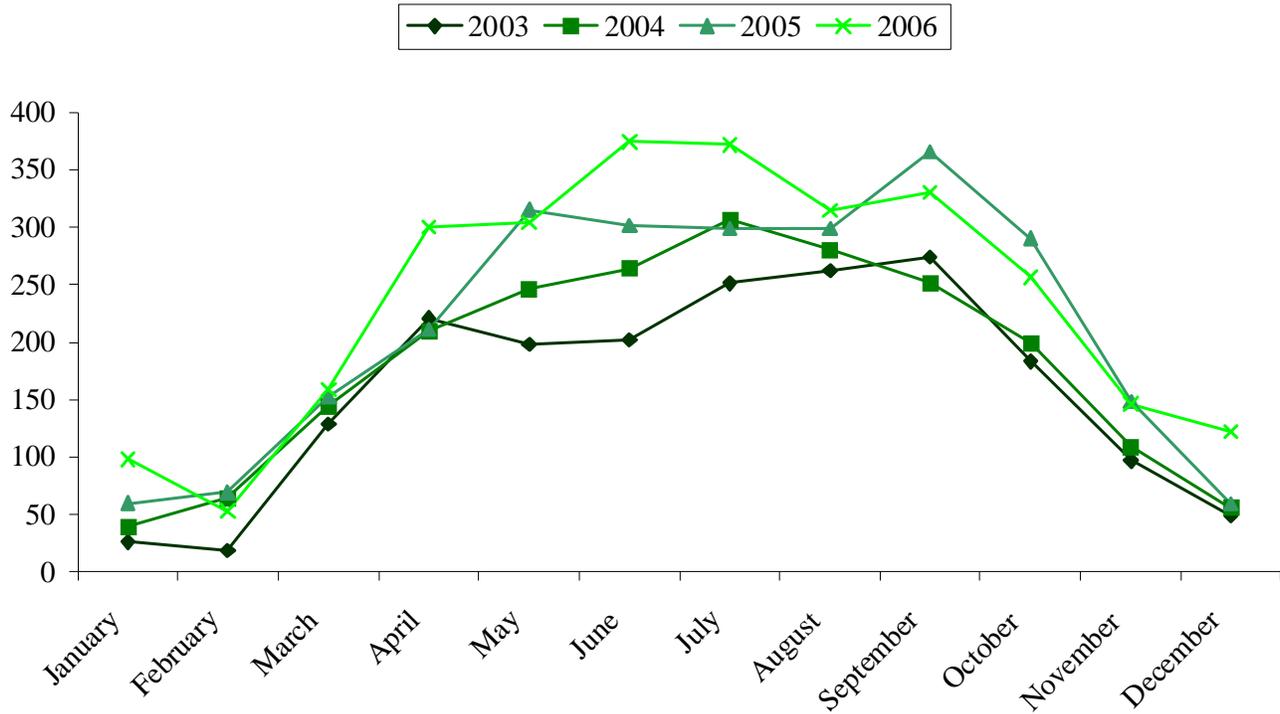
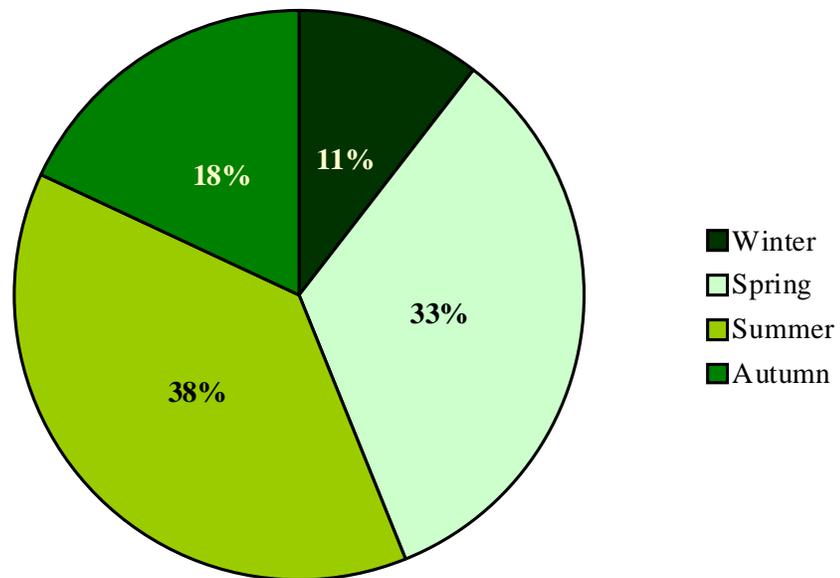


Table 7: Percentage of Motorcycle Crashes Occurring per Month

Month	2003	2004	2005	2006	Total	By Season
January	1%	2%	2%	3%	2%	Winter 11%
February	1%	3%	3%	2%	2%	
March	7%	7%	6%	6%	6%	
April	12%	10%	8%	11%	10%	Spring
May	10%	11%	12%	11%	11%	33%
June	11%	12%	12%	13%	12%	
July	13%	14%	12%	13%	13%	
August	14%	13%	12%	11%	12%	Summer 38%
September	14%	12%	14%	12%	13%	
October	10%	9%	11%	9%	10%	
November	5%	5%	6%	5%	5%	Autumn 18%
December	3%	3%	2%	4%	3%	

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Motorcycle Crashes by Season, 2003 - 2006



Motorcycle crashes from 2003 – 2006 exhibit a regular weekly cycle. The number of motorcycle crashes grows at an increasing rate Monday through Saturday, falls significantly from Saturday to Sunday, and again from Sunday to Monday. Over half of all motorcycle crashes in Tennessee between 2003 and 2006 occurred from Friday to Sunday, with almost one quarter occurring on Saturday. Tables 7 and 8 and the accompanying charts illustrate these tendencies.

Table 8: Motorcycle Crashes by Day of Week

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Unknown
2003	366	194	206	182	198	287	458	20
2004	417	201	220	225	242	343	512	9
2005	464	282	234	288	279	386	635	0
2006	489	310	311	326	355	438	598	0
Total	1,736	987	971	1,021	1,074	1,454	2,203	29

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Motorcycle Crashes by Day of Week, 2003 - 2006

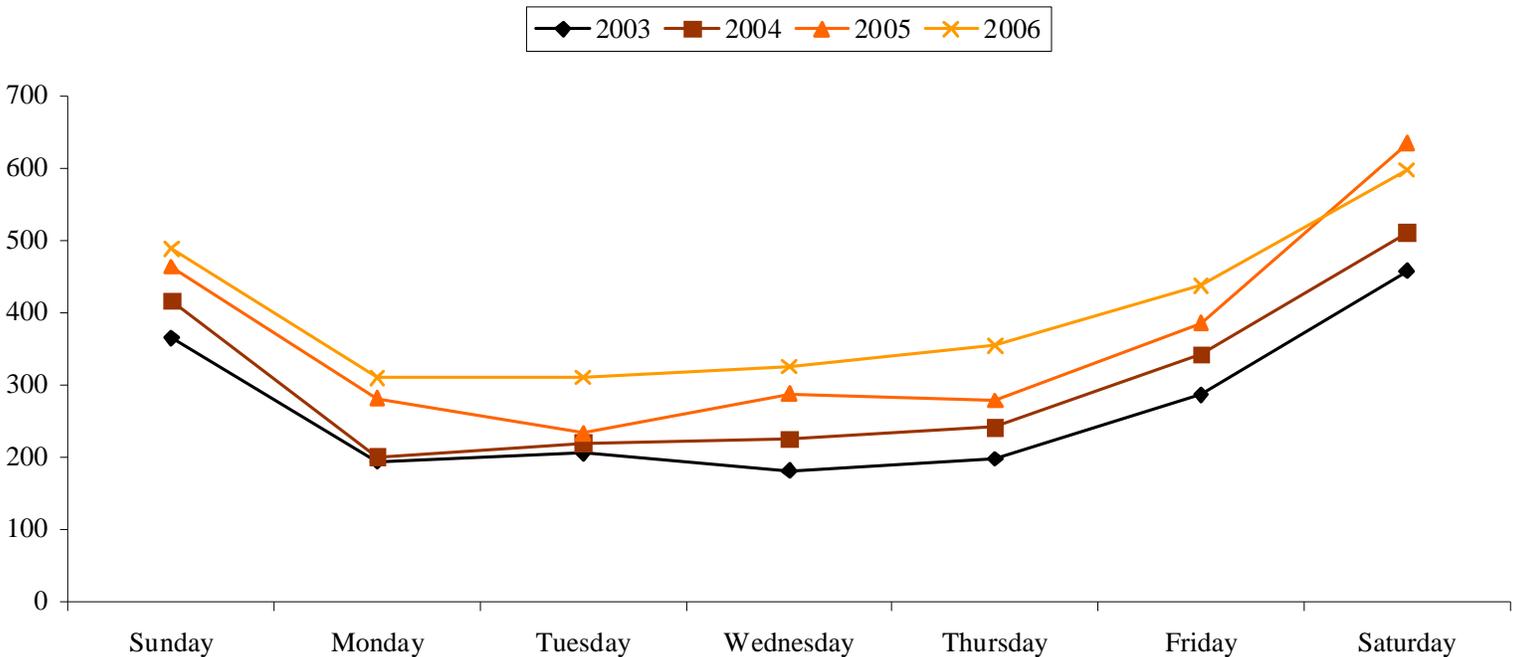
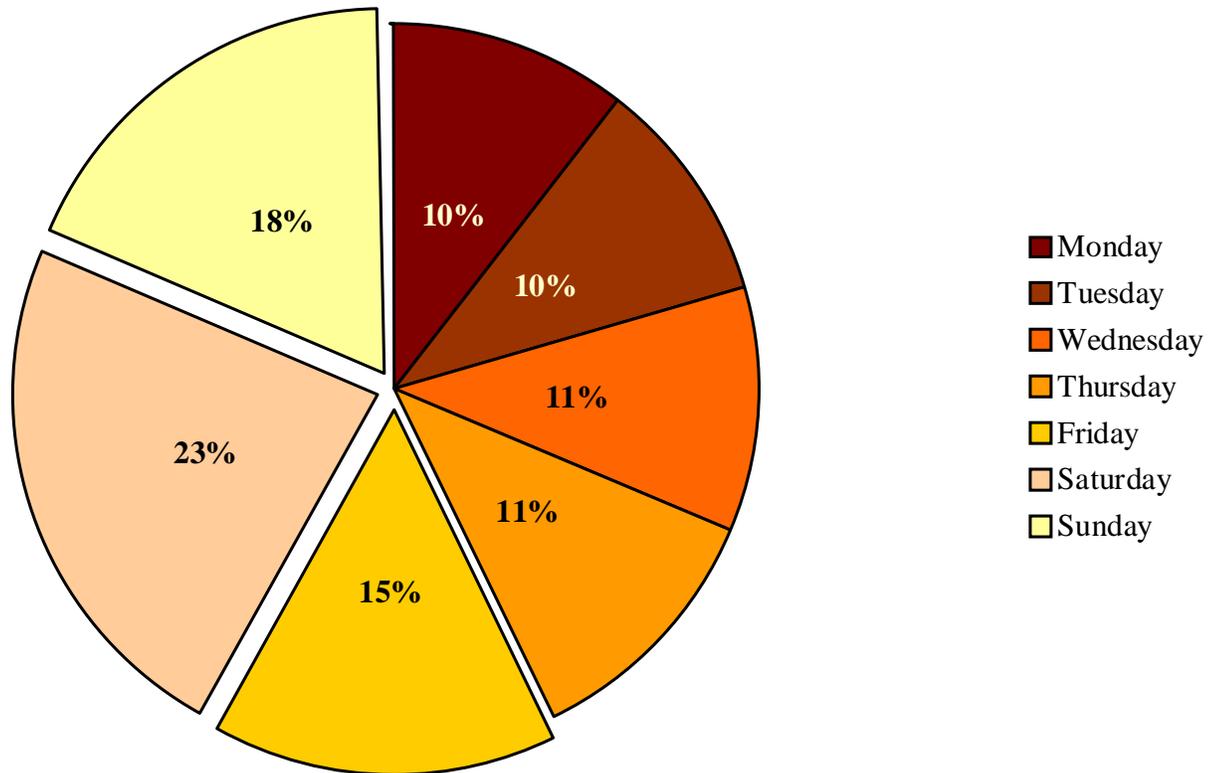


Table 9: Percentage of Motorcycle Crashes Occurring per Day of Week

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2003	19%	10%	11%	10%	10%	15%	24%
2004	19%	9%	10%	10%	11%	16%	24%
2005	18%	11%	9%	11%	11%	15%	25%
2006	17%	11%	11%	12%	13%	15%	21%
Totals	18%	10%	10%	11%	11%	15%	23%

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Motorcycle Crashes by Day of Week, 2003 - 2006



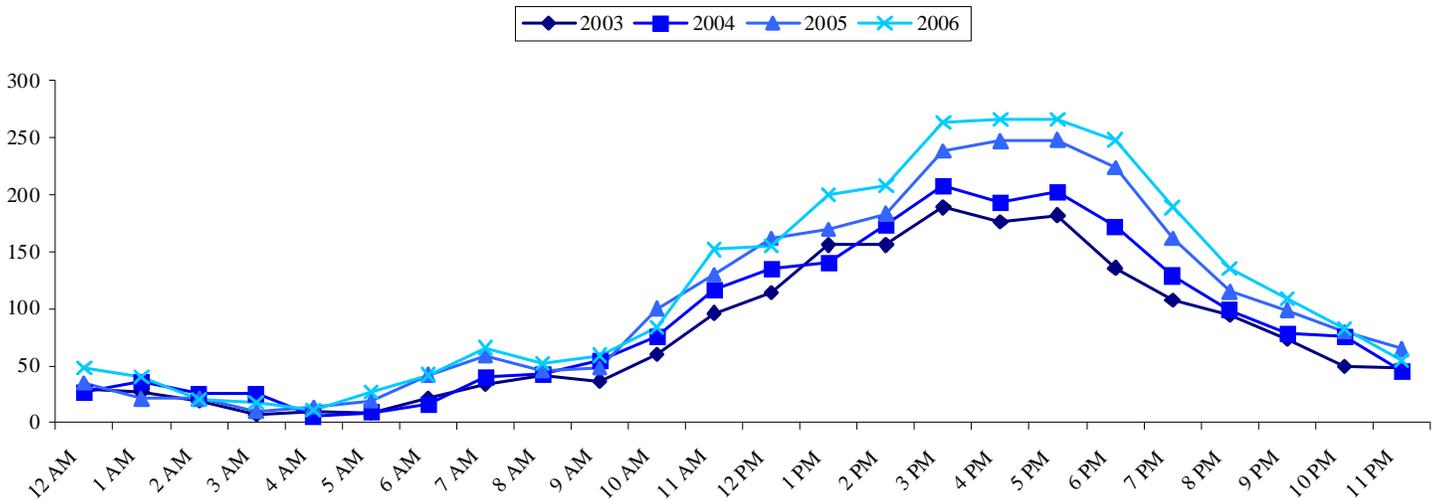
Motorcycle crashes in Tennessee from 2003 – 2006 also reveal a daily pattern. Crashes increase quickly beginning about 10 A.M., reaching a peak around 4 P.M., then decrease more slowly throughout the night. Eighty percent of the crashes happened between 10 A.M. and 10 P.M., with nearly two-thirds of those crashes occurring from 1 – 7 P.M.

Table 10: Motorcycle Crashes Occurring by Hour

Hour	2003	2004	2005	2006	Total
12 AM	30	27	35	48	140
1 AM	27	36	21	40	124
2 AM	19	25	21	20	85
3 AM	7	25	10	18	60
4 AM	10	6	14	11	41
5 AM	9	9	19	27	64
6 AM	22	17	42	42	123
7 AM	34	40	59	66	199
8 AM	42	43	46	52	183
9 AM	37	54	48	59	198
10 AM	60	76	100	84	320
11 AM	96	117	130	152	495
12 PM	114	135	162	155	566
1 PM	156	141	169	200	666
2 PM	156	173	183	208	720
3 PM	189	208	238	263	898
4 PM	176	193	247	266	882
5 PM	182	202	248	266	898
6 PM	136	172	224	248	780
7 PM	108	129	162	189	588
8 PM	95	99	115	135	444
9 PM	74	78	99	109	360
10 PM	49	76	80	82	287
11 PM	48	46	65	55	214
Unknown	35	42	31	32	140
Total	1,911	2,169	2,568	2,827	9,475

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Motorcycle Crashes by Hour, 2003 - 2006

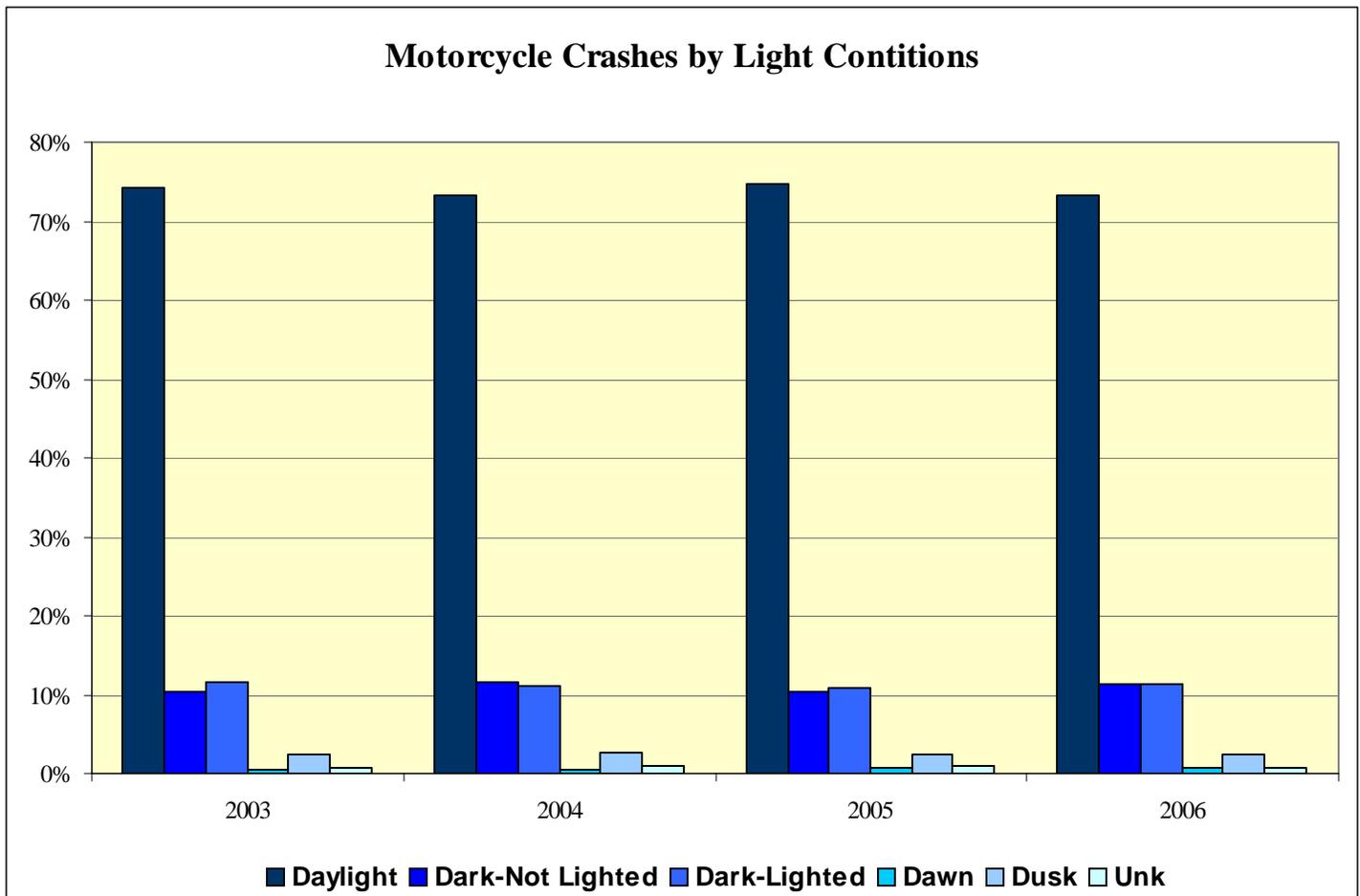


Light conditions at the time of motorcycle crashes reflect the times that motorcyclists are on the roads. Over 70% of motorcycle crashes occur in daylight. Another 22% of motorcycle crashes occurred in the dark, equally distributed among lighted and unlighted areas. Four times as many motorcycle crashes occurred at dusk than at dawn.

Table 11: Motorcycle Crashes by Light Condition

Year	Light Condition						Total
	Daylight	Dark-Not Lighted	Dark-Lighted	Dawn	Dusk	Unk	
2003	1,420	199	221	11	48	12	1,911
2004	1,590	250	242	8	60	19	2,169
2005	1,918	266	280	20	60	24	2,568
2006	2,071	323	322	18	71	22	2,827
Total	6,999	1,038	1,065	57	239	77	9,475

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.



Eighty percent of motorcycle drivers in crashes from 2003 to 2006 were between the ages of 20 and 59. The number of motorcycle drivers in crashes has increased in every age group since 2003. As a percentage of all motorcycle drivers in crashes, drivers from ages 15 to 24 and 45 to 59 increased, while drivers between the ages of 25 and 44 decreased.

Table 12: Motorcycle Drivers in Crashes by Age

	2003	2004	2005	2006	Total
Under 15	5	10	8	8	31
15 to 19	90	115	153	175	533
20 to 24	254	304	309	409	1,276
25 to 29	218	272	306	300	1,096
30 to 34	261	266	296	312	1,135
35 to 39	199	251	287	302	1,039
40 to 44	235	272	323	308	1,138
45 to 49	223	236	324	361	1,144
50 to 54	177	196	262	279	914
55 to 59	110	119	179	209	617
60 to 64	65	67	91	86	309
65 to 69	25	33	39	58	155
70 to 74	8	11	10	23	52
75 to 99	1	6	6	8	21
Unknown	76	48	35	42	201
Total	1,947	2,206	2,628	2,880	9,661

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

Motorcycle Drivers in Crashes by Age

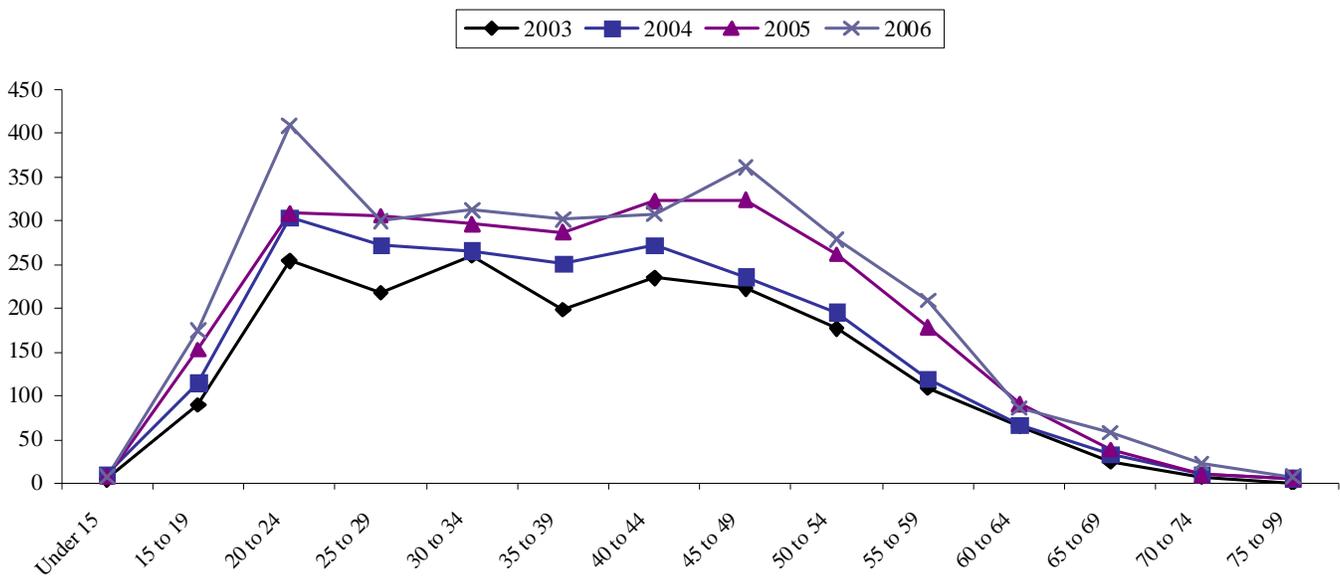


Table 13: Percentage of Motorcycle Drivers in Crashes by Age

	2003	2004	2005	2006	Avg
Under 15	0.3%	0.5%	0.3%	0.3%	0.3%
15 to 19	4.6%	5.2%	5.8%	6.1%	5.5%
20 to 24	13.0%	13.8%	11.8%	14.2%	13.2%
25 to 29	11.2%	12.3%	11.6%	10.4%	11.3%
30 to 34	13.4%	12.1%	11.3%	10.8%	11.7%
35 to 39	10.2%	11.4%	10.9%	10.5%	10.8%
40 to 44	12.1%	12.3%	12.3%	10.7%	11.8%
45 to 49	11.5%	10.7%	12.3%	12.5%	11.8%
50 to 54	9.1%	8.9%	10.0%	9.7%	9.5%
55 to 59	5.6%	5.4%	6.8%	7.3%	6.4%
60 to 64	3.3%	3.0%	3.5%	3.0%	3.2%
65 to 69	1.3%	1.5%	1.5%	2.0%	1.6%
70 to 74	0.4%	0.5%	0.4%	0.8%	0.5%
75 to 99	0.1%	0.3%	0.2%	0.3%	0.2%
Unknown	3.9%	2.2%	1.3%	1.5%	2.1%

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

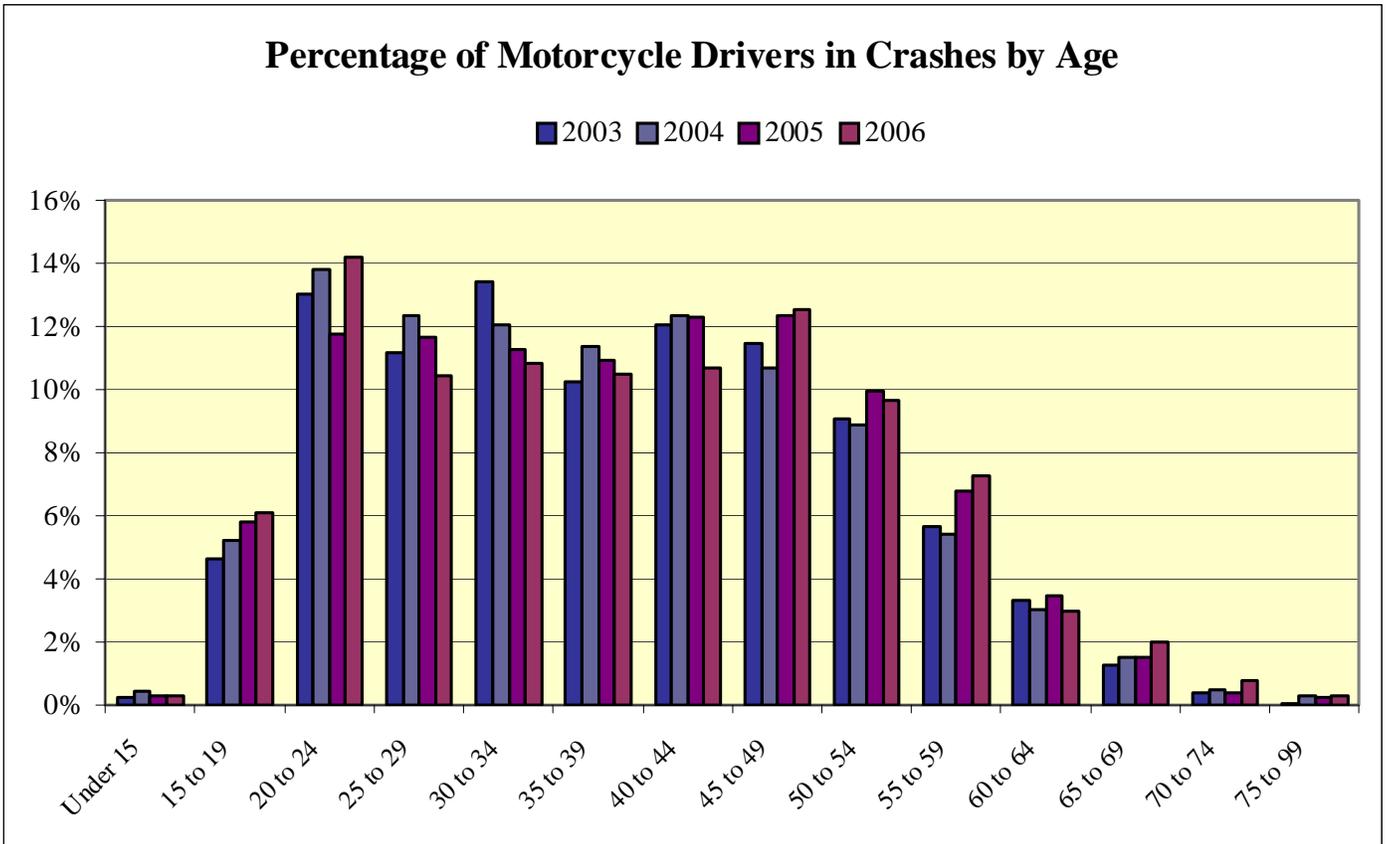
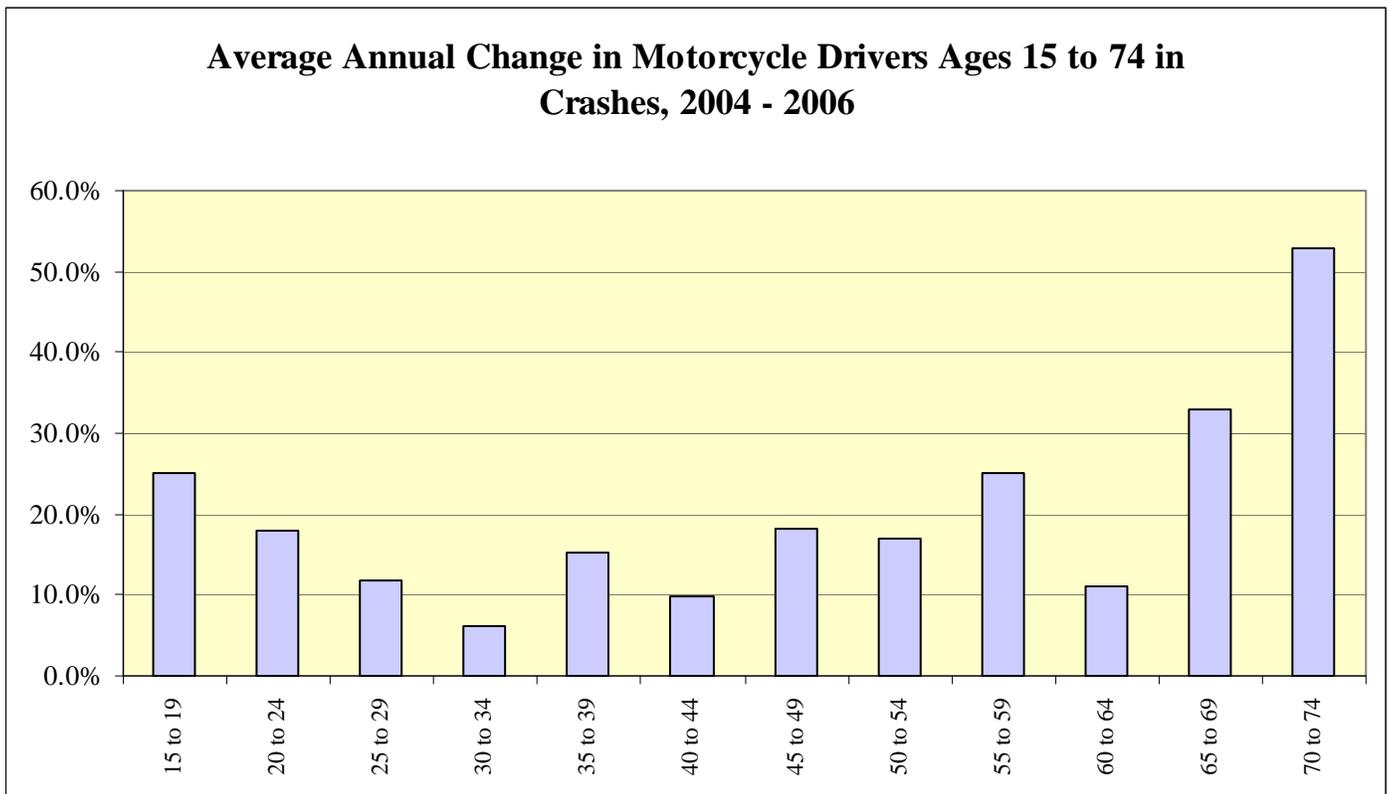


Table 14: Annual Percent Change of Motorcycle Drivers in Crashes by Age

	2003	2004	2005	2006	Avg
Under 15	N/A	100.0%	-20.0%	0.0%	26.7%
15 to 19	N/A	27.8%	33.0%	14.4%	25.1%
20 to 24	N/A	19.7%	1.6%	32.4%	17.9%
25 to 29	N/A	24.8%	12.5%	-2.0%	11.8%
30 to 34	N/A	1.9%	11.3%	5.4%	6.2%
35 to 39	N/A	26.1%	14.3%	5.2%	15.2%
40 to 44	N/A	15.7%	18.8%	-4.6%	10.0%
45 to 49	N/A	5.8%	37.3%	11.4%	18.2%
50 to 54	N/A	10.7%	33.7%	6.5%	17.0%
55 to 59	N/A	8.2%	50.4%	16.8%	25.1%
60 to 64	N/A	3.1%	35.8%	-5.5%	11.1%
65 to 69	N/A	32.0%	18.2%	48.7%	33.0%
70 to 74	N/A	37.5%	-9.1%	130.0%	52.8%
75 to 99	N/A	500.0%	0.0%	33.3%	177.8%
Unknown/ Other	N/A	-36.8%	-27.1%	20.0%	-14.6%
Total	N/A	13.3%	19.1%	9.6%	14.0%

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.



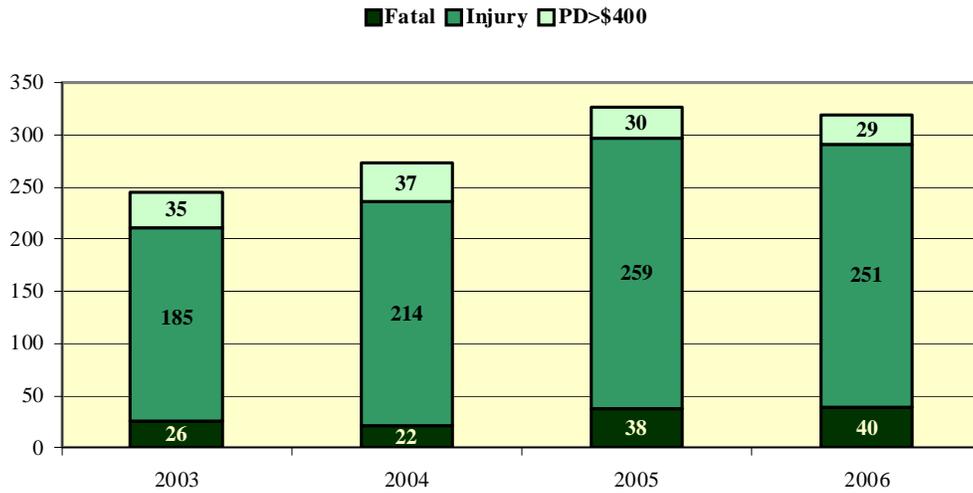
Between 2003 and 2006, 12% of motorcycle crashes in Tennessee were known to be speed related.

Table 15: Speed-Related Motorcycle Crashes

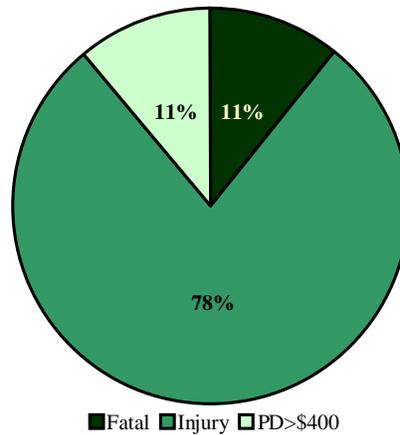
Year	2003	2004	2005	2006	Total
Fatal	26	22	38	40	126
Injury	185	214	259	251	909
PD>\$400	35	37	30	29	131
Total	246	273	327	320	1,166

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

**Speed-Related Motorcycle Crashes by Type of Crash
2003 - 2006**



**Crash Severity in Speed Related Motorcycle Crashes
2003 - 2006**



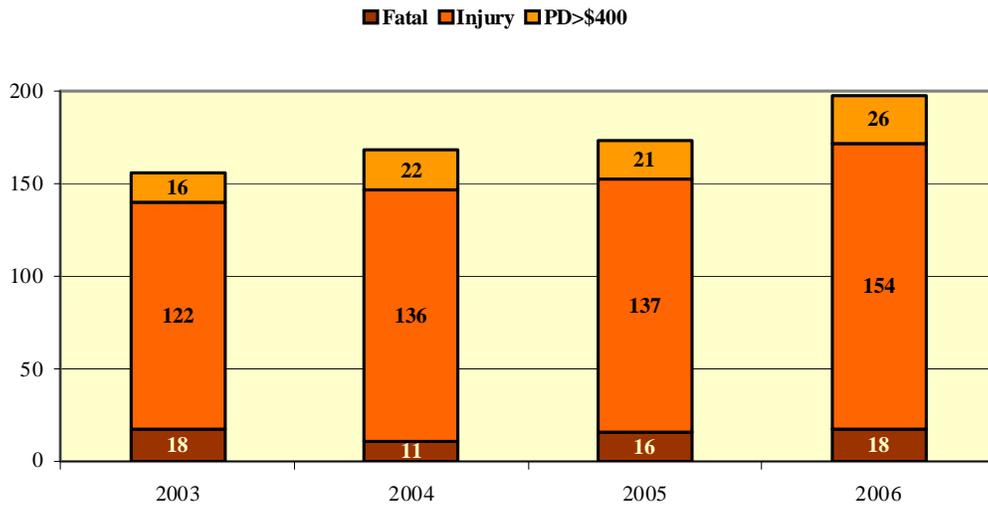
Between 2003 and 2006, 7% of motorcycle crashes in Tennessee were known to be alcohol related.

Table 16: Alcohol-Related Motorcycle Crashes

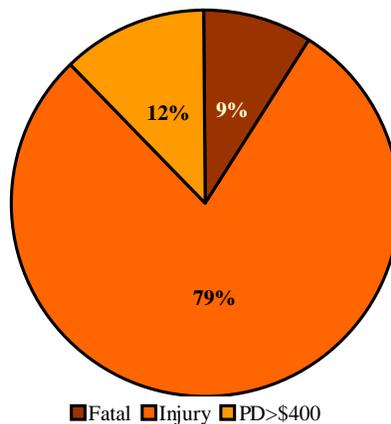
Year	2003	2004	2005	2006	Total
Fatal	18	11	16	18	63
Injury	122	136	137	154	549
PD>\$400	16	22	21	26	85
Total	156	169	174	198	697

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

**Alcohol-Related Motorcycle Crashes by Type of Crash
2003-2006**



**Crash Severity in Alcohol Related Motorcycle Crashes
2003 - 2006**



Motorcyclists tend to avoid adverse weather conditions, so over 95% of motorcycle crashes from 2003 – 2006 occurred with no adverse weather conditions. The vast majority of the remaining crashes occurred in the rain, and a small number (less than one half of one percent) occurred in fog.

Table 17: Motorcycle Crashes by Weather Conditions

Weather Condition	2003	2004	2005	2006	Total
No Adverse Condition	1,823	2,061	2,475	2,675	9,034
Rain	67	83	60	99	309
Sleet, Hail	0	0	0	0	0
Snow	1	0	0	1	2
Fog	7	6	10	7	30
Rain and Fog	0	3	1	2	6
Sleet and Fog	0	0	0	0	0
Smog, Smoke	0	0	0	0	0
Sand, Soil, Dirt, Snow	0	0	1	0	1
Severe Crosswind	0	0	1	0	1
Other/Unk	13	16	20	43	92
Total	1,911	2,169	2,568	2,827	9,475

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

**Motorcycle Crashes by Weather Conditions
2003 - 2006**

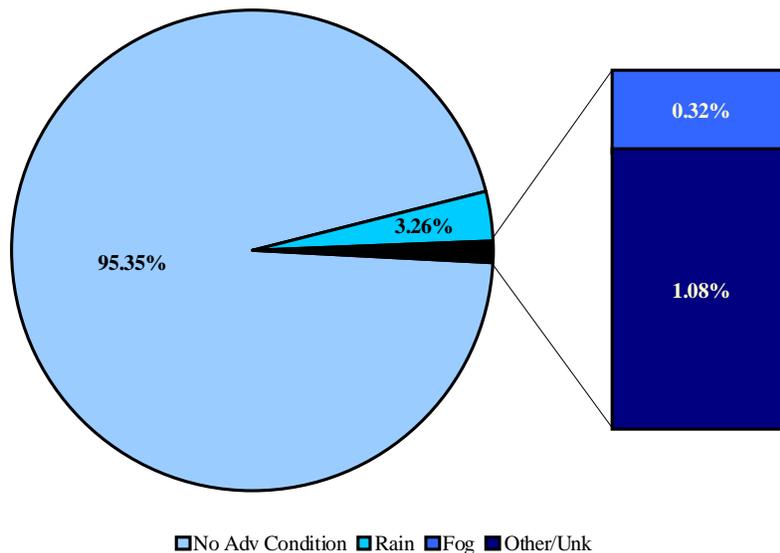


Table 18
Multiple Vehicle Crashes

Year	Crashes	%
2003	950	49.7%
2004	1,072	49.4%
2005	1,228	47.8%
2006	1,404	49.7%
Total	4,654	49.1%

Table 19
Intersection Related Crashes*

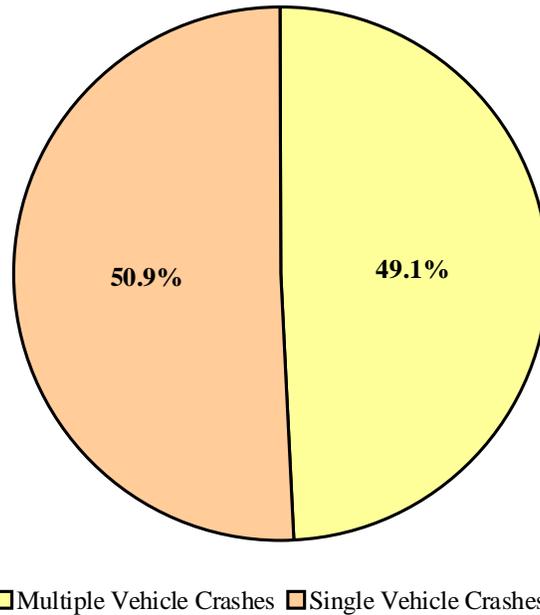
Year	Crashes	%
2003	577	30.2%
2004	579	26.7%
2005	660	25.7%
2006	799	28.3%
Total	2,615	27.6%

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.

*The crash occurred at the intersection or the reporting officer indicated that the crash was intersection related.

Slightly more than one quarter of the motorcycle crashes occurring between 2003 and 2006 were intersection related. About half of all motorcycle crashes during the same period were single vehicle crashes.

Multiple Vehicle vs Single Vehicle Motorcycle Crashes
2003 - 2006

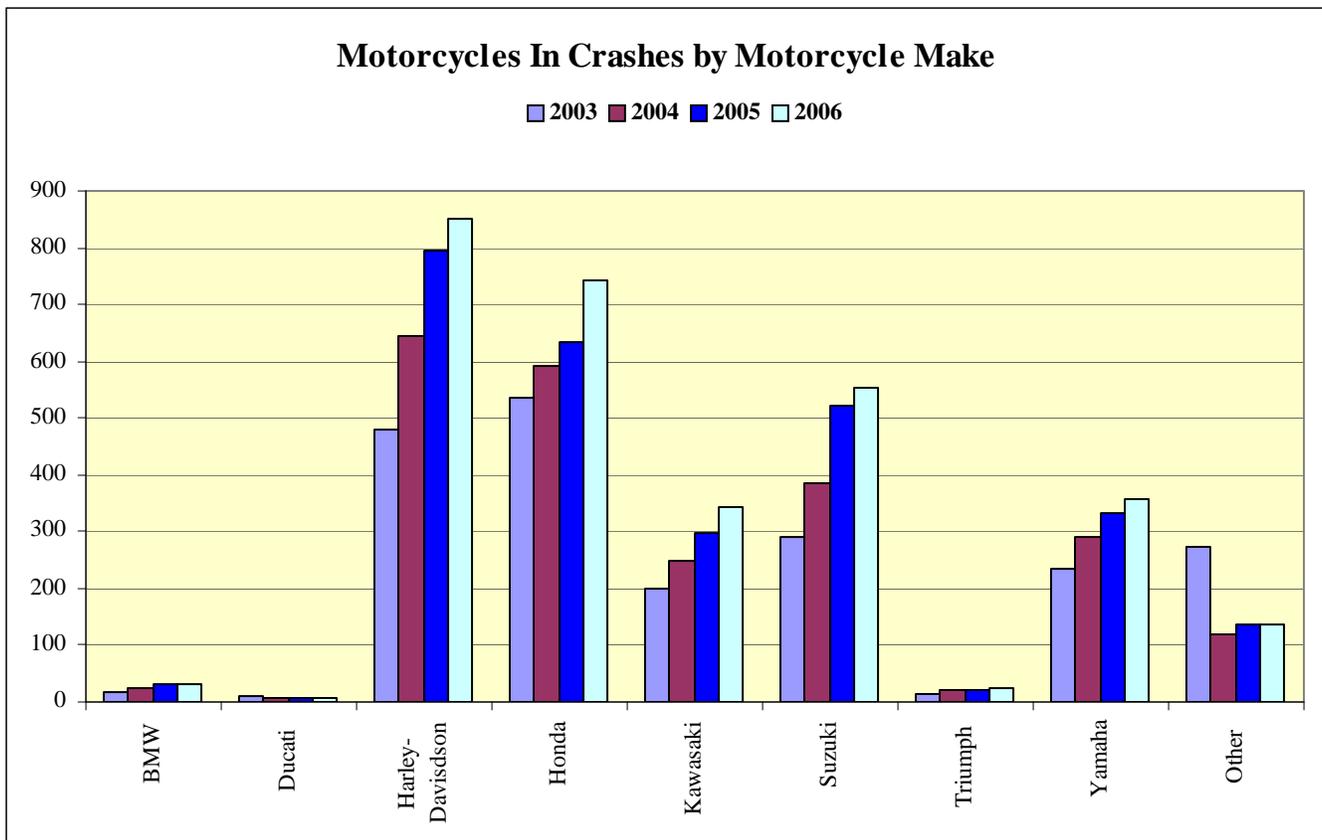


Five makes of motorcycle accounted for over 90% of motorcycles in crashes in Tennessee from 2003 to 2006. Over half of the motorcycles were Harley-Davidsons or Hondas. Table 18 shows motorcycles in crashes by type.

Table 20: Motorcycles In Crashes by Motorcycle Make

Make	2003	2004	2005	2006	Total
BMW	17	23	32	31	103
Ducati	12	8	7	6	33
Harley-Davidson	480	644	794	852	2,770
Honda	537	591	634	743	2,505
Kawasaki	201	250	297	344	1,092
Suzuki	289	385	521	553	1,748
Triumph	14	22	20	23	79
Yamaha	233	290	333	357	1,213
Other	274	120	137	135	666
Total	2,057	2,333	2,775	3,044	10,209

Source: TN Dept of Safety Crash Reporting System, 06 May 2008.



Prepared By:

Tennessee Department of Safety
Research, Planning, and Development Division
Menzler-Nix Building, 1150 Foster Avenue
Nashville, TN 37243
615-687-2400

